

PATENT COOPERATION TREATY

PCT

JC10 Rec'd PCT/PTO 27 JUN 2005

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference RLL-361WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/IB2004/002804	International filing date (day/month/year) 30/08/2004	(Earliest) Priority Date (day/month/year) 29/08/2003
Applicant RANBAXY LABORATORIES LIMITED		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 13 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☒ **Certain claims were found unsearchable** (See Box II).

3. ☒ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

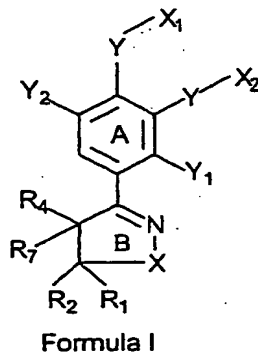
INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2004/002804

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The present invention relates to isoxazoline derivatives of structure(I), which can be used as selective inhibitors of phosphodiesterase (PDE) type IV. In particular, compounds disclosed herein can be useful in the treatment of AIDS, asthma, arthritis, bronchitis, chronic obstructive pulmonary disease (COPD), psoriasis, allergic rhinitis, shock, atopic dermatitis, Crohn's disease, adult respiratory distress syndrome (ARDS), eosinophilic granuloma, allergic conjunctivitis, osteoarthritis, ulcerative colitis and other inflammatory diseases in a patient, particularly in humans. The present invention also relates to processes for the preparation of disclosed compounds, as well as pharmaceutical compositions thereof, and their use as phosphodiesterase (PDE) type IV inhibitors.



INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/002804

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D261/04 C07D413/06 C07D487/08 C07D413/14 C07D498/10
 C07D261/20 C07C45/61 C07C269/06 A61K31/422 A61K31/423
 A61K31/424

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D C07C A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, BIOSIS, EMBASE, BEILSTEIN Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 95/14680 A (PFIZER ; KLEINMAN EDWARD F (US)) 1 June 1995 (1995-06-01) claims 1,15	1-10, 12-31
X	WO 02/50070 A (LEWTHWAITE RUSSELL ANDREW ; KORNBERG BRIAN EDWARD (US); MANNING DAVID) 27 June 2002 (2002-06-27) claim 7 page 134; table 3; compound 18	1-10,13
X	WO 95/14681 A (PFIZER ; KLEINMAN EDWARD F (US)) 1 June 1995 (1995-06-01) page 24 - page 25; compounds 28,29 page 21; compound 21	1-10
	- / - -	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

8 June 2005

Date of mailing of the international search report

22.06.05

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Kollmannsberger, M

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/002804

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE CAPLUS [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; FIHI, RACHID ET AL: "Reaction of methylene-.gamma.-butyrolactones with aryl nitrile oxides. Unexpected bisadduct from 5-methylene-5H-furan-2-one" XP002330581 retrieved from STN Database accession no. 1995:376061 compound with RN 162710-40-9 abstract & BULLETIN DES SOCIETES CHIMIQUES BELGES , 104(1), 55-62 CODEN: BSCBAG; ISSN: 0037-9646, 1995,</p>	1-8
X	<p>----- EP 0 515 684 A (CHUGAI SEIYAKU KABUSHIKI KAISHA) 2 December 1992 (1992-12-02) page 13; compounds IV, 28</p>	1-10,13
X	<p>----- EP 0 387 941 A (JANSSEN PHARMACEUTICA N.V) 19 September 1990 (1990-09-19) claim 1</p>	1-10,13
P,X	<p>----- TIAN, LI ET AL: "1,3-Dipolar cycloaddition reactions of nitrile oxides to prop-1-ene-1,3-sultone" JOURNAL OF HETEROCYCLIC CHEMISTRY , 40(6), 1071-1074 CODEN: JHTCAD; ISSN: 0022-152X, 2003, XP002330565 table 1; compound 4L</p>	1-10,13
X	<p>----- SALGADO-ZAMORA H ET AL: "OXIDATIVE DEGRADATION OF ARYLFURO-1,2-OXAZOLES TO ARYLNITRILES BY POTASSIUM PERMANGANATE" HETEROCYCLIC COMMUNICATIONS, FREUND PUBLISHING HOUSE, TEL AVIV, IL, vol. 7, no. 3, 2001, pages 209-212, XP009041526 ISSN: 0793-0283 page 210; compound 3A</p>	1-10,13
X	<p>----- HASSIKOU A ET AL: "Synthèse de nouveaux polyhétérocycles" TETRAHEDRON LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 42, no. 34, 20 August 2001 (2001-08-20), pages 5857-5861, XP004295942 ISSN: 0040-4039 page 5859; compound 20</p> <p>----- -/--</p>	1-10,13

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/002804

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>SYASSI B ET AL: "Nouvelle méthode de synthèse des 4,5-dihydroisoxazoles en milieu biphasique solide-liquide et par activation ultrasonique" TETRAHEDRON LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 40, no. 40, 1 October 1999 (1999-10-01), pages 7205-7209, XP004179018 ISSN: 0040-4039 page 7207; compounds IIE, IIF</p>	1-10,13
X	<p>SUBRAMANIAN T ET AL: "FACILE SYNTHESIS OF 3-AROYL-3-SULFOLENES THROUGH CYCLOADDITIONS OF ARYLNITRILE OXIDES & 3-SULFOLENE" SYNTHETIC COMMUNICATIONS, MARCEL DEKKER, INC., BASEL, CH, vol. 27, no. 15, 1997, pages 2557-2562, XP009041534 ISSN: 0039-7911 table 1; compounds 1D, 1F</p>	1-10,13
X	<p>BRAHMESHWARI G ET AL: "SYNTHESIS OF 3-ARYLNAPHTHÄ2,3-DÜ-ISOXAZOLE-4,9-DIONES FROM LAWSONE" INDIAN JOURNAL OF CHEMISTRY, SECTION B: ORGANIC, INCL. MEDICINAL, PUBLICATIONS & INFORMATIONS DIRECTORATE, NEW DELHI, IN, vol. 34B, no. 2, February 1995 (1995-02), pages 139-140, XP009041541 ISSN: 0019-5103 compounds 2D,3D</p>	1-10,13
X	<p>GABOURY, JANET A. ET AL: "Enantiocontrolled synthesis of burseran, brassilignan, dehydroxycubebin, and other tetrahydrofuran lignans in both enantiomeric forms. Application of intermolecular nitrile oxide cycloadditions and lipase-mediated kinetic resolutions" JOURNAL OF ORGANIC CHEMISTRY, 58(8), 2173-80 CODEN: JOCEAH; ISSN: 0022-3263, 1993, XP002330566 page 2174; compounds 6,9C,9D</p>	1-10,13
	-/--	

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/002804

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>BRAHMESHWARI G ET AL: "SYNTHESIS AND BIOLOGICAL ACIVITY OF FUSED HETEROCYCLES DERIVED FROM EMBELIN"</p> <p>INDIAN JOURNAL OF CHEMISTRY, SECTION B: ORGANIC, INCL. MEDICINAL, PUBLICATIONS & INFORMATIONS DIRECTORATE, NEW DELHI, IN, vol. 30B, no. 3, March 1991 (1991-03), pages 369-370, XP009041539</p> <p>ISSN: 0019-5103</p> <p>table 1; compounds IIID, IVD, VD</p>	1-10,13
X	<p>AWAD W I ET AL: "1,3-DIPOLAR CYCLOADDITION OF NITRILE OXIDES. II. REACTIONS WITH O-QUINOID STRUCTURES"</p> <p>CANADIAN JOURNAL OF CHEMISTRY, NATIONAL RESEARCH COUNCIL. OTTAWA, CA, vol. 47, no. 9, 1969, pages 1473-1477, XP009041540</p> <p>ISSN: 0008-4042</p> <p>page 1475; compound 8C</p>	1-10,13
X	<p>SYASSI B ET AL: "Addition Dipolaire-1,3 des Arylnitriloxydes avec quelques Dipolarophiles Olefiniques sur Alumine en Milieu sec et sous Micro-ondes"</p> <p>TETRAHEDRON LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 38, no. 51, 22 December 1997 (1997-12-22), pages 8855-8858, XP004162383</p> <p>ISSN: 0040-4039</p> <p>page 8856; compounds 7G,7H</p>	1-10,13
X	<p>DESCACQ, P. ET AL: "Arylpyrazolines nitrofuraniques: synthèse et propriétés antibactériennes"</p> <p>EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY , 25(3), 285-90 CODEN: EJMCA5; ISSN: 0223-5234, 1990, XP001206364</p> <p>table 1; compounds 3-10</p>	11,13-15
X	<p>BISAGNI, EMILE ET AL: "Synthesis of 3-aryl-4-acetyl-1H-pyrazolo[3,4-b]pyridine s and 3-aryl-4-acetyl-1H-pyrazolo[4,3-c]pyridine s"</p> <p>HETEROCYCLES , 29(9), 1815-24 CODEN: HTCYAM; ISSN: 0385-5414, 1989, XP009048339</p> <p>compounds 4B,5B,16B,17B,</p>	11,13

-/--

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/002804

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE CAPLUS [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; HAIZA, MOHAMMED A.: "Synthesis of some new 3,5-bisaryl-2-pyrazoline derivatives of expected antimicrobial activities" XP002330582 retrieved from STN Database accession no. 1998:725992 compounds with RN 219698-40-5, 219698-37-0, 219698-38-1, 219698-39-2, 219698-41-6, 219698-42-7, 219698-43-8, 219698-47-2 abstract & AL-AZHAR BULLETIN OF SCIENCE , 8(2), 445-454 CODEN: ABSCE7; ISSN: 1110-2535, 1997,</p>	11,13-15
X	<p>----- DATABASE CAPLUS [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; VARACHE-BERANGER, M. ET AL: "Thienylbenzofurans and arylthienylpyrazolines: synthesis and inhibitory effects on platelet aggregation in vitro" XP002330583 retrieved from STN Database accession no. 1989:608702 compounds with rn 123689-84-9, 123689-85-0, 123689-86-1 abstract & BULLETIN DE LA SOCIETE DE PHARMACIE DE BORDEAUX , 127(1-2-3-4), 37-48 CODEN: BSPBAD; ISSN: 0037-9093, 1988,</p>	11,13-15
X	<p>----- EYNDE VANDEN J J ET AL: "QUATERNARY AMMONIUM SALT-ASSISTED ORGANIC REACTIONS IN WATER: ALKYLATION OF PHENOLS" SYNTHETIC COMMUNICATIONS, MARCEL DEKKER, NEW YORK, NY, US, vol. 31, no. 1, 1 January 2001 (2001-01-01), pages 1-7, XP001019426 ISSN: 0039-7911 figure 1 table 1 ----- -/--</p>	32-34

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/002804

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GUAY D ET AL: "Discovery of L-791,943: A potent, selective, non emetic and orally active phosphodiesterase-4 inhibitor" BIOORGANIC AND MEDICINAL CHEMISTRY LETTERS 03 JUN 2002 UNITED KINGDOM, vol. 12, no. 11, 3 June 2002 (2002-06-03), pages 1457-1461, XP002330568 ISSN: 0960-894X	32
Y	page 1458 scheme 1 -----	33,34
X	CHAURET N ET AL: "Improving metabolic stability of phosphodiesterase-4 inhibitors containing a substituted catechol: Prevention of reactive intermediate formation and covalent binding" BIOORGANIC AND MEDICINAL CHEMISTRY LETTERS 19 AUG 2002 UNITED KINGDOM, vol. 12, no. 16, 19 August 2002 (2002-08-19), pages 2149-2152, XP002330569 ISSN: 0960-894X	32
Y	page 2150 scheme 2 -----	33,34
X	US 5 710 170 A (GUAY ET AL) 20 January 1998 (1998-01-20)	32
Y	column 14 - column 16 column 30; example 9 -----	33,34
Y	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 08, 30 June 1999 (1999-06-30) & JP 11 071319 A (ASAHI GLASS CO LTD), 16 March 1999 (1999-03-16) abstract -----	32-34
Y	LANGLOIS B R: "Improvement of the synthesis of aryl difluoromethyl ethers and thioethers by using a solid-liquid phase-transfer technique" JOURNAL OF FLUORINE CHEMISTRY, ELSEVIER SEQUOIA. LAUSANNE, CH, vol. 41, no. 2, November 1988 (1988-11), pages 247-261, XP002232989 ISSN: 0022-1139 page 252; table ii -----	32-34
Y	US 5 712 298 A (AMSCHLER ET AL) 27 January 1998 (1998-01-27) column 10, line 65 - column 11, line 29 ----- -/--	32-34

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/002804

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	<p>RAJU B ET AL: "Conformationally restricted analogs of deoxynegamycin" BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, vol. 14, no. 12, 21 June 2004 (2004-06-21), pages 3103-3107, XP002330578 ISSN: 0960-894X scheme 6 page 3105</p>	55-62
Y	<p>----- US 4 115 589 A (LEDNICER ET AL) 19 September 1978 (1978-09-19) column 3, line 6 - line 10</p>	55-62
Y	<p>----- VINICK F J ET AL: "AN EFFICIENT SYNTHESIS OF 1 PHENYL-1-PIPERIDINO-TRANS-4-METHYLCYCLOH EXANE UNANTICIPATED TOTAL STEREOSELECTIVITY IN THE CATALYTIC HYDROGENATION OF AN OLEFIN" TETRAHEDRON LETTERS, vol. 28, no. 7, 1987, pages 741-744, XP002330579 ISSN: 0040-4039 page 743; figure</p>	55-62
Y	<p>----- KING FRANK D ET AL: "(Racemic) 3-amino-6-carboxamido-1,2,3,4-tetrahydroca rbazole: A conformationally restricted analogue of 5-carboxamidotryptamine with selectivity for the serotonin 5-HT-1D receptor" JOURNAL OF MEDICINAL CHEMISTRY, vol. 36, no. 13, 1993, pages 1918-1919, XP002330580 ISSN: 0022-2623 scheme 1 page 1918, column 2</p>	55-62
Y	<p>----- NOGUCHI, HIROHIDE ET AL: "Total synthesis and absolute configuration of radiosumin, a strong trypsin inhibitor from the blue-green alga Plectonema radiosum" HETEROCYCLES, 58, 471-504 CODEN: HTCYAM; ISSN: 0385-5414, 2002, XP001206744 scheme 1 page 472 page 473; figure 3 schemes 5,7 page 475 - page 476</p> <p>-----</p>	55-62

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2004/002804

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 14 and 15 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-10(part);12-15(part); 16-30; 31(part);

isoxazolines of structure (I) according to claim 1 in which R2 is a linear substituent; corresponding preparation processes and uses

2. claims: 1-10(part); 12-15(part); 31(part); 35-54; 63-74

isoxazolines of structure (I) according to claim 1 in which R1 and R2 together with the isoxazoline ring form a spirocondensed ring system; corresponding preparation processes and uses

3. claims: 1-10(part); 12-15(part)

isoxazolines of structure (I) according to claim 1 in which R2 and R4 together with the isoxazoline ring form a condensed ring system; corresponding preparation processes and uses

4. claims: 11; 12-15(part)

compounds of structure (I) according to claim 11 in which X=S or N, i. e. isozhiazolidines or dihydropyrazoles, and corresponding uses

5. claims: 32-34

a preparation process for benzaldehydes of formulas XXI and XXII

6. claims: 55-62

a preparation process for methylenecycloalkanes according to formula XXXIX

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/002804

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9514680	A	01-06-1995	AT 187447 T	15-12-1999
			CA 2177375 A1	01-06-1995
			DE 69422061 D1	13-01-2000
			DE 69422061 T2	30-03-2000
			DK 730587 T3	10-04-2000
			EP 0730587 A1	11-09-1996
			ES 2139754 T3	16-02-2000
			FI 945556 A	27-05-1995
			GR 3032506 T3	31-05-2000
			WO 9514680 A1	01-06-1995
			JP 2818820 B2	30-10-1998
			JP 9500146 T	07-01-1997
			PT 730587 T	31-05-2000
			US 5686434 A	11-11-1997

WO 0250070	A	27-06-2002	AU 2396802 A	01-07-2002
			BR 0116311 A	23-09-2003
			CA 2436699 A1	27-06-2002
			EP 1345935 A2	24-09-2003
			WO 0250070 A2	27-06-2002
			JP 2004516295 T	03-06-2004
			MX PA03004652 A	05-09-2003
			US 2003018021 A1	23-01-2003

WO 9514681	A	01-06-1995	AT 154932 T	15-07-1997
			AU 687452 B2	26-02-1998
			AU 7821894 A	13-06-1995
			BR 9408174 A	27-05-1997
			CA 2176255 A1	01-06-1995
			CN 1136314 A ,C	20-11-1996
			CZ 9601510 A3	15-01-1997
			DE 69404044 D1	07-08-1997
			DE 69404044 T2	16-10-1997
			DK 730588 T3	08-12-1997
			EG 20693 A	30-11-1999
			EP 0730588 A1	11-09-1996
			ES 2104424 T3	01-10-1997
			FI 945557 A	27-05-1995
			GR 3024133 T3	31-10-1997
			HU 76784 A2	28-11-1997
			WO 9514681 A1	01-06-1995
			IL 111670 A	16-08-1998
			JP 2802547 B2	24-09-1998
			JP 9500147 T	07-01-1997
			KR 182324 B1	01-05-1999
			NO 962127 A	24-05-1996
			NZ 274244 A	22-09-1997
			PL 314605 A1	16-09-1996
			US 5716967 A	10-02-1998
			ZA 9409379 A	27-05-1996

EP 0515684	A	02-12-1992	AU 7317391 A	03-09-1991
			CA 2076012 A1	15-08-1991
			EP 0515684 A1	02-12-1992
			WO 9111994 A1	22-08-1991
			ZA 9101101 A	27-11-1991

EP 0387941	A	19-09-1990	AU 630431 B2	29-10-1992

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/002804

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0387941	A		AU 5178890 A	09-10-1990
			CA 2048629 A1	16-09-1990
			CN 1045582 A	26-09-1990
			WO 9010630 A1	20-09-1990
			EP 0387941 A1	19-09-1990
			EP 0466710 A1	22-01-1992
			JP 4504112 T	23-07-1992
			NZ 232785 A	26-03-1991
			PH 27055 A	01-02-1993
			PT 93426 A	07-11-1990
			US 5256681 A	26-10-1993
			ZA 9001957 A	27-11-1991
			ZM 1090 A1	31-01-1992
			ZW 2890 A1	16-10-1991

US 5710170	A	20-01-1998	AU 707574 B2	15-07-1999
			AU 1028097 A	14-07-1997
			CA 2238875 A1	26-06-1997
			WO 9722586 A1	26-06-1997
			EP 0873311 A1	28-10-1998
			JP 2000501742 T	15-02-2000
			JP 3465825 B2	10-11-2003

JP 11071319	A	16-03-1999	NONE	

US 5712298	A	27-01-1998	AT 217612 T	15-06-2002
			AU 687087 B2	19-02-1998
			AU 7490794 A	24-01-1995
			CA 2165192 A1	12-01-1995
			CN 1126468 A ,C	10-07-1996
			CY 2389 A	10-09-2004
			CZ 9600001 A3	12-06-1996
			DE 59410119 D1	20-06-2002
			DK 706513 T3	09-09-2002
			WO 9501338 A1	12-01-1995
			EP 0706513 A1	17-04-1996
			ES 2176252 T3	01-12-2002
			FI 956333 A	29-12-1995
			HK 1011690 A1	11-10-2002
			HU 73232 A2	29-07-1996
			JP 8512041 T	17-12-1996
			JP 3093271 B2	03-10-2000
			NO 955211 A	21-12-1995
			NZ 271316 A	24-11-1997
			PL 311820 A1	18-03-1996
			PT 706513 T	31-10-2002
			RU 2137754 C1	20-09-1999
			SI 706513 T1	31-10-2002
			SK 161795 A3	03-07-1996

US 4115589	A	19-09-1978	US 4143156 A	06-03-1979
